

ALUMINUM ALLOY PIPING MATERIAL FOR AUTOMOTIVE TUBES
HAVING EXCELLENT CORROSION RESISTANCE AND FORMABILITY,
AND METHOD OF MANUFACTURING SAME

ABSTRACT OF THE DISCLOSURE

An aluminum alloy piping material for automotive tubes having excellent tube expansion formability by bulge forming at the tube end and superior corrosion resistance, which is suitably used for a tube connecting an automotive radiator and heater, or for a tube connecting an evaporator, condenser, and compressor. The aluminum alloy piping material is an annealed material of an aluminum alloy comprisingcontaining 0.3 to 1.5% of Mn, 0.20% or less of Cu, 0.10 to 0.20% of Ti, more than 0.20% but 0.60% or less of Fe, and 0.50% or less of Si with the balance being aluminum and unavoidable impurities, wherein the aluminum alloy piping material has an average crystal grain size of 100 μm or less, and Ti-based compounds having a grain size (circle equivalent diameter, hereinafter the same) of 10 μm or more do not exist as an aggregate of two or more serial compounds in a single crystal grain.